



MSc project (afstudeerstage) “Near-real time satellite data for water related applications”

Deltares is an independent institute for applied research in the field of water and subsurface with five areas of expertise: Flood Risk, Adaptive Planning, Infrastructure, Water & subsoil resources, Environment. Our knowledge development is supported by software development and data science. NRT satellite observations from satellite are crucial for early warning, comparison with or assimilation in operational models.

Deltares has a vacancy for a MSc student who is interested in making near-real time satellite data available for further use. The project will be carried out at Deltares and will be funded as part of the activities for the interactive Data laboratory (iDlab <https://www.deltares.nl/nl/faciliteiten/idlab/>).

Contents of the research

Deltares has a dish (a so-called EUMETCast system) which enables us to receive near-real time (NRT) satellite data. To benefit from this data stream, you will make the following key steps:

- Implement existing open software (the GEONETCast Toolbox)
- Connect this with current work processes at Deltares based on Open Earth Tools (OET) and FEWS
- Set up a metadata system, and a disclaimer on the data
- Write small Python scripts to visualise the data in the iDlab
- Compare Sentinel-3 data with (existing) in situ data

Next you will work on this data stream and implement the results in an application that Deltares is currently developing. The objective is to illustrate that the EUMETCast data can support our modelling (with respect to early warning and /or impact). Finally, you will write a report and give a practical presentation (pizza course) for interested Deltares experts and other iDlab users.

Expected impact of your research will be that these data will be widely used by Deltares experts and other iDlab users.

Function requirements

The candidate must have:

- Programming skills
- Interest in and knowledge of satellite remote sensing
- An affinity with large datasets in interdisciplinary research
- The position involves collaboration and communication in a larger team of international researchers

Further Particulars

The appointment will preferably be 1.0 fte for the duration of 3 to max 9 months.

In certain cases we offer remuneration (stage-vergoeding)

Additional Information

Further information can be obtained from marieke.eleveld@deltares.nl and gertjan.schotmeijer@deltares.nl

Applications

Written applications, including a CV, list of grades, two professional references and preferably a report or paper, should be addressed within one month after this announcement per e-mail to:

marieke.eleveld@deltares.nl